

Supplementary Table 1: User characteristics

Baseline Characteristics

		N	%
Overall	Overall	502299	100
	Female	412020	82
Gender	Male	88272	18
	Other	2007	0
	[18,30)	153799	31
	[30,45)	154164	31
Age	[45,60)	112481	22
	[60,80)	79431	16
	[80+)	2424	0
	White	302422	60
	Hispanic Latino	31679	6
	African American	17142	3
Race	Asian	10907	2
	Other	9186	2
	Multiracial White	18713	4
	Missing	112250	22
	Healthcare	39617	8
Profession	Other Essential	44884	9
	Nonessential	193678	39
	Missing	224120	45
	Never Smoked	320600	64
Smoking History	Used To Smoke	119545	24
	Currently Smoke	62154	12
	0	237965	47
Reported Preexisting Conditions	1	153187	30
	2+	101282	20
	Missing	9865	2
	1	130328	26
No. Logins	2-4	131293	26
	5-14	149627	30
	15+	91051	18

Supplementary  
Symptom merging criteria

Table 2:

New merged variable	Variables being merged	
symptoms_cough	not_well_symptoms_dry_cough	not_well_symptoms_wet_cough
symptoms_chills_shaking	not_well_symptoms_chills_shaking	symptoms_well_chills
symptoms_loss_of_taste_and_or_smell	symptoms_well_loss_of_taste_and_or_smell	not_well_symptoms_loss_of_taste_and_or_smell
symptoms_diarrhea	not_well_symptoms_diarrhea	
symptoms_loss_of_appetite	not_well_symptoms_loss_of_appetite	symptoms_well_loss_of_appetite
symptoms_tight_feeling_in_chest	symptoms_well_tight_feeling_in_chest	not_well_symptoms_tight_feeling_in_chest
symptoms_muscle_and_joint_pain	not_well_symptoms_muscle_and_joint_pain	symptoms_well_muscle_and_joint_pain
symptoms_nasal_congestion	not_well_symptoms_nasal_congestion	symptoms_well_nasal_congestion
symptoms_shortness_of_breath	not_well_symptoms_shortness_of_breath	
symptoms_nausea_and_vomiting	not_well_symptoms_nausea_and_vomiting	
symptoms_runny_nose	symptoms_well_runny_nose	not_well_symptoms_runny_nose
symptoms_sore_throat	not_well_symptoms_sore_throat	
symptoms_fatigue	not_well_symptoms_fatigue	symptoms_well_mild_fatigue
symptoms_fever	symptoms_well_low_grade_fever	not_well_symptoms_fever
symptoms_facial_numbness	not_well_symptoms_facial_numbness	
symptoms_tingling_sensation	not_well_symptoms_tingling_sensation	

Supplementary Table 3: Logistic regression coefficients for selection/propensity model for who gets tested in Fig. 2. Analysis used 277151 total observations.

	coef	std err	z	P> z	0.025	0.975

intercept	-4.8982	0.089	-54.988	0	-5.073	-4.724
West South Central	-0.3472	0.068	-5.113	0	-0.48	-0.214
West North Central	-0.4166	0.079	-5.253	0	-0.572	-0.261
South Atlantic	-0.2836	0.056	-5.042	0	-0.394	-0.173
New England	-0.0589	0.051	-1.148	0.251	-0.159	0.042
Mountain	0.1325	0.064	2.067	0.039	0.007	0.258
Middle Atlantic	-0.3028	0.065	-4.69	0	-0.429	-0.176
East South Central	0.1344	0.078	1.725	0.085	-0.018	0.287
East North Central	-0.2302	0.059	-3.909	0	-0.346	-0.115
sleep_11_or_more_hours	0.2893	0.16	1.807	0.071	-0.024	0.603
sleep_9_to_10_hours	0.1734	0.069	2.522	0.012	0.039	0.308
sleep_5_to_6_hours	0.0764	0.047	1.623	0.105	-0.016	0.169
sleep_less_than_5	-0.1587	0.072	-2.189	0.029	-0.301	-0.017
popden_1000+	0.3301	0.049	6.791	0	0.235	0.425
popden_150-999	0.0503	0.047	1.075	0.282	-0.041	0.142
prof_other_essential	0.3327	0.043	7.783	0	0.249	0.417
prof_healthcare	1.0786	0.035	30.733	0	1.01	1.147
household_members_count_5	-0.1904	0.059	-3.235	0.001	-0.306	-0.075
household_members_count_4	-0.28	0.056	-4.981	0	-0.39	-0.17
household_members_count_3	-0.1374	0.053	-2.577	0.01	-0.242	-0.033
household_members_count_2	-0.0869	0.047	-1.838	0.066	-0.18	0.006
symptoms_tingling_sensation	-0.4921	0.169	-2.914	0.004	-0.823	-0.161
symptoms_fever	1.469	0.101	14.531	0	1.271	1.667
symptoms_fatigue	0.5249	0.062	8.432	0	0.403	0.647
symptoms_sore_throat	0.8636	0.091	9.442	0	0.684	1.043
symptoms_runny_nose	-0.0904	0.069	-1.307	0.191	-0.226	0.045
symptoms_nausea_and_vomiting	0.1142	0.127	0.896	0.37	-0.136	0.364
symptoms_shortness_of_breath	0.6784	0.106	6.416	0	0.471	0.886
symptoms_nasal_congestion	0.22	0.056	3.917	0	0.11	0.33
symptoms_muscle_and_joint_pain	0.28	0.062	4.529	0	0.159	0.401
symptoms_tight_feeling_in_chest	0.8189	0.082	10.025	0	0.659	0.979
symptoms_loss_of_appetite	0.333	0.117	2.838	0.005	0.103	0.563
symptoms_diarrhea	0.3663	0.124	2.942	0.003	0.122	0.61
symptoms_loss_of_taste_and_or_smell	0.4162	0.111	3.737	0	0.198	0.634
symptoms_chills_shaking	0.1501	0.117	1.285	0.199	-0.079	0.379
symptoms_cough	1.1158	0.059	19.06	0	1.001	1.231
used_to_smoke	0.0515	0.035	1.488	0.137	-0.016	0.119
preexisting_pregnant	0.0211	0.16	0.132	0.895	-0.292	0.335
preexisting_not_say	-0.2842	0.185	-1.536	0.125	-0.647	0.079

<b>preexisting liver disease</b>	0.0991	0.136	0.73	0.466	-0.167	0.365
<b>preexisting immunodeficiency</b>	0.1836	0.069	2.664	0.008	0.049	0.319
<b>preexisting hypertension</b>	0.0604	0.042	1.448	0.148	-0.021	0.142
<b>preexisting diabetes</b>	0.1033	0.056	1.84	0.066	-0.007	0.213
<b>preexisting chronic kidney disease</b>	0.2257	0.117	1.936	0.053	-0.003	0.454
<b>preexisting chronic lung disease</b>	0.0091	0.094	0.097	0.923	-0.175	0.193
<b>preexisting cardiovascular disease</b>	0.1866	0.072	2.591	0.01	0.045	0.328
<b>preexisting cancer</b>	0.2973	0.085	3.504	0	0.131	0.464
<b>preexisting autoimmune disease</b>	0.0313	0.052	0.608	0.544	-0.07	0.132
<b>preexisting asthma</b>	0.1121	0.04	2.794	0.005	0.033	0.191
<b>preexisting allergies</b>	0.0255	0.033	0.772	0.44	-0.039	0.09
<b>unadj_100k+</b>	-0.1835	0.048	-3.827	0	-0.277	-0.09
<b>unadj_70-100k</b>	-0.0704	0.037	-1.909	0.056	-0.143	0.002
<b>unadj_0-40k</b>	0.0007	0.06	0.011	0.991	-0.117	0.118
<b>race ethnicity unknown</b>	-0.0673	0.157	-0.427	0.669	-0.376	0.241
<b>race ethnicity other expanded</b>	-0.2088	0.135	-1.544	0.123	-0.474	0.056
<b>race ethnicity multi</b>	0.003	0.169	0.018	0.986	-0.329	0.335
<b>race ethnicity asian</b>	-0.1326	0.109	-1.22	0.222	-0.346	0.08
<b>race ethnicity african american</b>	0.3879	0.068	5.726	0	0.255	0.521
<b>race ethnicity hispanic latino</b>	0.3281	0.055	5.927	0	0.22	0.437
<b>female</b>	-0.0894	0.041	-2.164	0.03	-0.17	-0.008
<b>65-99</b>	0.3422	0.067	5.119	0	0.211	0.473
<b>55-64</b>	0.4635	0.054	8.63	0	0.358	0.569
<b>45-54</b>	0.4758	0.05	9.574	0	0.378	0.573
<b>30-44</b>	0.3745	0.044	8.531	0	0.288	0.461

Supplementary Table 4: Unadjusted logistic regression inference results displayed in Fig. 3a. Analysis used 3829 testing outcome observations.

	<b>coef</b>	<b>std err</b>	<b>z</b>	<b>P&gt; z </b>	<b>[0.025</b>	<b>0.975]</b>
<b>intercept</b>	-5.1078	0.619	-8.248	0.000	-6.322	-3.894
<b>30-44</b>	0.0683	0.220	0.310	0.756	-0.363	0.500
<b>45-54</b>	0.0723	0.251	0.288	0.773	-0.420	0.564
<b>55-64</b>	-0.0109	0.270	-0.040	0.968	-0.541	0.519
<b>65-99</b>	0.0572	0.399	0.143	0.886	-0.725	0.839
<b>female</b>	-0.5446	0.199	-2.734	0.006	-0.935	-0.154

<b>race ethnicity hispanic latino</b>	0.8416	0.242	3.482	0.000	0.368	1.315
<b>race ethnicity african american</b>	0.8175	0.289	2.826	0.005	0.250	1.384
<b>race ethnicity asian</b>	-0.0122	0.589	-0.021	0.984	-1.167	1.143
<b>race ethnicity multi</b>	-0.0200	0.896	-0.022	0.982	-1.776	1.736
<b>race ethnicity other expanded</b>	0.2552	0.662	0.385	0.700	-1.043	1.553
<b>race ethnicity unknown</b>	0.2135	0.847	0.252	0.801	-1.446	1.873
<b>unadj 0-40k</b>	-0.0257	0.327	-0.078	0.937	-0.667	0.615
<b>unadj 70-100k</b>	-0.2999	0.187	-1.601	0.109	-0.667	0.067
<b>unadj 100k+</b>	-0.1379	0.237	-0.582	0.560	-0.602	0.326
<b>preexisting allergies</b>	-0.3664	0.171	-2.145	0.032	-0.701	-0.032
<b>preexisting asthma</b>	-0.8628	0.231	-3.731	0.000	-1.316	-0.410
<b>preexisting autoimmune disease</b>	-0.8760	0.305	-2.868	0.004	-1.475	-0.277
<b>preexisting cancer</b>	-0.4213	0.474	-0.889	0.374	-1.350	0.508
<b>preexisting cardiovascular disease</b>	-0.9412	0.495	-1.900	0.057	-1.912	0.030
<b>preexisting chronic lung disease</b>	-0.5140	0.627	-0.820	0.412	-1.743	0.715
<b>preexisting chronic kidney disease</b>	0.2472	0.606	0.408	0.683	-0.940	1.435
<b>preexisting diabetes</b>	0.1780	0.277	0.643	0.520	-0.364	0.720
<b>preexisting hypertension</b>	0.1394	0.213	0.655	0.513	-0.278	0.557
<b>preexisting immunodeficiency</b>	-0.0221	0.372	-0.059	0.953	-0.752	0.708
<b>preexisting liver disease</b>	0.4873	0.515	0.946	0.344	-0.523	1.497
<b>preexisting not say</b>	0.0673	0.728	0.092	0.926	-1.360	1.495
<b>preexisting pregnant</b>	1.8629	0.506	3.679	0.000	0.871	2.855
<b>used to smoke</b>	-0.0109	0.178	-0.061	0.951	-0.359	0.337
<b>symptoms cough</b>	1.4186	0.244	5.806	0.000	0.940	1.898
<b>symptoms chills shaking</b>	-0.6962	0.488	-1.428	0.153	-1.652	0.259
<b>symptoms loss of taste and or smell</b>	2.9563	0.299	9.888	0.000	2.370	3.542
<b>symptoms diarrhea</b>	-0.0655	0.516	-0.127	0.899	-1.076	0.945
<b>symptoms loss of appetite</b>	0.6357	0.438	1.451	0.147	-0.223	1.494

<b>symptoms_tight_feeling_in_chest</b>	-0.3983	0.351	-1.134	0.257	-1.087	0.290
<b>symptoms_muscle_and_joint_pain</b>	0.3534	0.287	1.232	0.218	-0.209	0.916
<b>symptoms_nasal_congestion</b>	0.1650	0.254	0.648	0.517	-0.334	0.664
<b>symptoms_shortness_of_breath</b>	-0.1033	0.434	-0.238	0.812	-0.955	0.748
<b>symptoms_nausea_and_vomiting</b>	-0.0328	0.548	-0.060	0.952	-1.107	1.041
<b>symptoms_runny_nose</b>	-0.3280	0.324	-1.011	0.312	-0.964	0.308
<b>symptoms_sore_throat</b>	-0.4333	0.395	-1.098	0.272	-1.207	0.340
<b>symptoms_fatigue</b>	0.1262	0.326	0.387	0.699	-0.513	0.766
<b>symptoms_fever</b>	1.5245	0.363	4.205	0.000	0.814	2.235
<b>symptoms_tingling_sensation</b>	0.5572	0.683	0.815	0.415	-0.782	1.897
<b>household_members_count_2</b>	-0.1447	0.248	-0.583	0.560	-0.631	0.342
<b>household_members_count_3</b>	-0.3466	0.282	-1.227	0.220	-0.900	0.207
<b>household_members_count_4</b>	-0.2916	0.294	-0.990	0.322	-0.869	0.286
<b>household_members_count_5</b>	-0.2556	0.301	-0.849	0.396	-0.846	0.335
<b>prof_healthcare</b>	0.6833	0.193	3.545	0.000	0.306	1.061
<b>prof_other_essential</b>	0.5151	0.217	2.371	0.018	0.089	0.941
<b>popden_150-999</b>	0.5614	0.303	1.854	0.064	-0.032	1.155
<b>popden_1000+</b>	0.7095	0.306	2.321	0.020	0.110	1.309
<b>covid_19_symptoms_in_household</b>	1.3056	0.201	6.497	0.000	0.912	1.700
<b>exposed_yes_household</b>	2.7721	0.231	12.016	0.000	2.320	3.224
<b>exposed_yes_not_household</b>	1.2085	0.187	6.468	0.000	0.842	1.575
<b>exposed_most_likely</b>	0.7760	0.181	4.280	0.000	0.421	1.131
<b>sleep_less_than_5</b>	-0.2018	0.368	-0.548	0.584	-0.923	0.520
<b>sleep_5_to_6_hours</b>	0.2037	0.261	0.779	0.436	-0.309	0.716
<b>sleep_9_to_10_hours</b>	0.7385	0.350	2.108	0.035	0.052	1.425
<b>sleep_11_or_more_hours</b>	0.6283	0.764	0.822	0.411	-0.869	2.126
<b>test_rate_0-2</b>	-0.6965	0.325	-2.140	0.032	-1.334	-0.059
<b>test_rate_2.5-3.7</b>	-0.2229	0.320	-0.697	0.486	-0.850	0.404

<b>test_rate_3.7+</b>	-0.0970	0.330	-0.294	0.769	-0.744	0.549
<b>East North Central</b>	0.8922	0.388	2.299	0.022	0.131	1.653
<b>East South Central</b>	-0.5336	0.764	-0.699	0.485	-2.030	0.963
<b>Middle Atlantic</b>	1.3110	0.495	2.649	0.008	0.341	2.281
<b>Mountain</b>	1.0965	0.516	2.125	0.034	0.085	2.108
<b>New England</b>	1.0713	0.505	2.119	0.034	0.081	2.062
<b>South Atlantic</b>	0.7326	0.406	1.804	0.071	-0.063	1.528
<b>West North Central</b>	1.0011	0.548	1.826	0.068	-0.073	2.076
<b>West South Central</b>	0.3121	0.581	0.537	0.592	-0.828	1.452

Supplementary Table 5: Bootstrapped logistic regression coefficients and corresponding 95% confidence intervals for 0.1 and 0.9 truncated IPW corrected regression in Fig. 3a. The standard errors were calculated assuming normality of the bootstrapped distribution. Specifically, if the bootstrapped CI = (a, b), the standard error could be approximated as SE = (b - a)/(2 \* 1.96). The z-value could be calculated by dividing the coefficient estimate by the standard error, and then the normal distribution could be used to obtain the p-value. Analysis used 3829 testing outcome observations.

	coefficient	CI 2.5%	CI 97.5%	SE	Z-value	Pvalue
<b>intercept</b>	-5.16709	-6.35775	-4.06202	0.585645	-8.8229	1.12E-18
<b>30-44</b>	0.141216	-0.25955	0.551935	0.207011	0.682165	0.495135
<b>45-54</b>	0.119394	-0.3401	0.567698	0.231581	0.51556	0.606162
<b>55-64</b>	0.028041	-0.4916	0.532209	0.261176	0.107364	0.9145
<b>65-99</b>	-0.05913	-0.81644	0.666388	0.378272	-0.15632	0.875784
<b>female</b>	-0.5897	-0.95608	-0.2188	0.188082	-3.13534	0.001717
<b>race_ethnicity_hispanic_latino</b>	0.952861	0.512705	1.379299	0.22107	4.310225	1.63E-05
<b>race_ethnicity_african_american</b>	0.852366	0.257261	1.430413	0.299273	2.848117	0.004398
<b>race_ethnicity_asian</b>	-0.62376	-1.48107	0.717292	0.560807	-1.11226	0.266029
<b>race_ethnicity_multi</b>	1.319129	-1.36849	4.426704	1.478366	0.892289	0.372238
<b>race_ethnicity_other_expanded</b>	-0.01366	-1.01896	1.179163	0.560746	-0.02436	0.980565
<b>race_ethnicity_unknown</b>	-1.14918	-4.21053	1.408829	1.43351	-0.80165	0.422753
<b>unadj_0-40k</b>	-0.05669	-0.6721	0.520211	0.304161	-0.18638	0.852146
<b>unadj_70-100k</b>	-0.35095	-0.69106	0.001862	0.176766	-1.9854	0.047101
<b>unadj_100k+</b>	-0.22332	-0.64961	0.188626	0.213836	-1.04435	0.296322
<b>preexisting_allergies</b>	-0.32122	-0.62879	-0.023	0.154538	-2.07858	0.037656
<b>preexisting_asthma</b>	-0.86036	-1.31901	-0.44719	0.222403	-3.86847	0.00011

<b>preexisting_autoimmune_disease</b>	-0.89166	-1.49593	-0.35185	0.291857	-3.05512	0.00225
<b>preexisting_cancer</b>	-0.60709	-1.79116	0.289785	0.530853	-1.14361	0.252785
<b>preexisting_cardiovascular_disease</b>	-1.37622	-2.42147	-0.43413	0.506974	-2.71457	0.006636
<b>preexisting_chronic_lung_disease</b>	-0.7243	-2.48543	0.667655	0.804358	-0.90047	0.367871
<b>preexisting_chronic_kidney_disease</b>	0.373986	-1.25836	1.571676	0.721948	0.518023	0.604442
<b>preexisting_diabetes</b>	0.01818	-0.54276	0.529171	0.273452	0.066483	0.946993
<b>preexisting_hypertension</b>	0.186931	-0.22037	0.5668	0.200809	0.930891	0.35191
<b>preexisting_immuneodeficiency</b>	-0.12055	-0.89626	0.59503	0.380431	-0.31688	0.751337
<b>preexisting_liver_disease</b>	0.357665	-0.90768	1.333803	0.571807	0.6255	0.531643
<b>preexisting_not_say</b>	0.121932	-1.56124	1.534953	0.789845	0.154375	0.877314
<b>preexisting_pregnant</b>	1.840954	0.895004	2.686809	0.457093	4.027525	5.64E-05
<b>used_to_smoke</b>	0.070458	-0.26799	0.384775	0.166522	0.423116	0.672211
<b>symptoms_cough</b>	1.49276	1.041262	1.945089	0.230568	6.474269	9.53E-11
<b>symptoms_chills_shaking</b>	-0.41735	-1.50657	0.576655	0.531435	-0.78533	0.432262
<b>symptoms_loss_of_taste_and_or_smell</b>	3.501585	2.850765	4.218562	0.348928	10.03527	1.07E-23
<b>symptoms_diarrhea</b>	-0.12518	-1.40689	1.00333	0.614852	-0.20359	0.838671
<b>symptoms_loss_of_appetite</b>	0.562962	-0.39018	1.50788	0.484199	1.162667	0.244965
<b>symptoms_tight_feeling_in_chest</b>	-0.31048	-1.08402	0.396131	0.37759	-0.82227	0.410924
<b>symptoms_muscle_and_joint_pain</b>	0.23399	-0.29614	0.759729	0.269354	0.868707	0.385007
<b>symptoms_nasal_congestion</b>	0.238592	-0.27848	0.733992	0.258284	0.92376	0.355612
<b>symptoms_shortness_of_breath</b>	-0.13188	-1.09911	0.776617	0.478502	-0.27561	0.782847
<b>symptoms_nausea_and_vomiting</b>	0.220278	-1.06422	1.410561	0.631322	0.348916	0.727153
<b>symptoms_runny_nose</b>	-0.53522	-1.27827	0.156367	0.365979	-1.46243	0.143622
<b>symptoms_sore_throat</b>	-0.68862	-1.54061	0.139805	0.428677	-1.60638	0.10819
<b>symptoms_fatigue</b>	0.184182	-0.48131	0.81762	0.33136	0.555837	0.578322
<b>symptoms_fever</b>	1.836516	1.035586	2.617711	0.403603	4.5503	5.36E-06
<b>symptoms_tingling_sensation</b>	0.614787	-1.50673	2.495549	1.02099	0.602148	0.547076
<b>household_members_count_2</b>	-0.12123	-0.58366	0.373192	0.244095	-0.49665	0.619435
<b>household_members_count_3</b>	-0.45656	-0.96935	0.079798	0.26764	-1.70587	0.088031
<b>household_members_count_4</b>	-0.23107	-0.77547	0.33036	0.282099	-0.81911	0.412725
<b>household_members_count_5</b>	-0.31484	-0.88683	0.269037	0.294864	-1.06775	0.285635
<b>prof_healthcare</b>	0.652475	0.308252	1.004105	0.177514	3.675636	0.000237
<b>prof_other_essential</b>	0.526975	0.126134	0.924818	0.203746	2.586432	0.009698
<b>popden_150-999</b>	0.461639	-0.03817	0.999793	0.264786	1.743439	0.081257
<b>popden_1000+</b>	0.615919	0.138911	1.122146	0.250825	2.45557	0.014066
<b>covid_19_symptoms_in_household</b>	1.425929	1.015588	1.831026	0.20802	6.854772	7.14E-12
<b>exposed_yes_household</b>	2.949913	2.509799	3.417983	0.23168	12.73273	3.89E-37
<b>exposed_yes_not_household</b>	1.282889	0.930385	1.644937	0.182284	7.037871	1.95E-12
<b>exposed_most_likely</b>	0.823373	0.501756	1.155905	0.166875	4.934078	8.05E-07
<b>sleep_less_than_5</b>	-0.04172	-0.83633	0.674483	0.385411	-0.10825	0.913799
<b>sleep_5_to_6_hours</b>	0.162134	-0.3747	0.683692	0.269998	0.600501	0.548173
<b>sleep_9_to_10_hours</b>	0.907125	0.243603	1.571422	0.338729	2.678023	0.007406
<b>sleep_11_or_more_hours</b>	0.330129	-2.1833	2.20408	1.11923	0.294961	0.768024

<b>test_rate_0-2</b>	-0.78301	-1.3832	-0.21263	0.298615	-2.62214	0.008738
<b>test_rate_2.5-3.7</b>	-0.38092	-0.99257	0.20235	0.304827	-1.24963	0.211435
<b>test_rate_3.7+</b>	-0.18984	-0.75396	0.417052	0.298728	-0.6355	0.525105
<b>East North Central</b>	0.866394	0.176528	1.619315	0.368058	2.353961	0.018575
<b>East South Central</b>	-1.72143	-22.6741	0.777501	5.982551	-0.28774	0.773544
<b>Middle Atlantic</b>	1.299712	0.441066	2.225666	0.455255	2.854909	0.004305
<b>Mountain</b>	0.972522	0.013488	1.983345	0.502515	1.935311	0.052952
<b>New England</b>	1.032625	0.14935	1.980985	0.467254	2.209987	0.027106
<b>South Atlantic</b>	0.617168	-0.10216	1.390915	0.380886	1.620346	0.105158
<b>West North Central</b>	0.824473	-0.12189	1.789892	0.487699	1.690535	0.090926
<b>West South Central</b>	0.016382	-1.26707	1.178593	0.623894	0.026258	0.979052

Supplementary Table 6: Tobit-2 model (Sample selection model) coefficients

	Estimate	Std.	Error	Pr(> t )	Significance
(Intercept)	-2.660077	0.235202	-11.31	2.00E-16	***
West.South.Central	-0.143412	0.02746	-5.223	1.77E-07	***
West.North.Central	-0.15126	0.031758	-4.763	1.91E-06	***
South.Atlantic	-0.111829	0.02268	-4.931	8.20E-07	***
New.England	-0.005468	0.02095	-0.261	0.79411	
Mountain	0.050696	0.026364	1.923	0.054493	.
Middle.Atlantic	-0.10325	0.025958	-3.978	6.96E-05	***
East.South.Central	0.0704	0.03233	2.178	0.029442	*
East.North.Central	-0.083267	0.023897	-3.484	0.000493	***
popden_1000+	0.123489	0.019687	6.273	3.56E-10	***
popden_150-999	0.015433	0.018902	0.816	0.414232	
symptoms_tingling_sensation	-0.262673	0.081748	-3.213	0.001313	**
symptoms_fever	0.78951	0.051016	15.476	2.00E-16	***
symptoms_fatigue	0.231751	0.027036	8.572	2.00E-16	***
symptoms_sore_throat	0.458944	0.044316	10.356	2.00E-16	***
symptoms_runny_nose	-0.038122	0.030547	-1.248	0.21205	
symptoms_nausea_and_vomiting	0.069487	0.061841	1.124	0.261166	
symptoms_shortness_of_breath	0.34886	0.052968	6.586	4.52E-11	***
symptoms_nasal_congestion	0.093935	0.024469	3.839	0.000124	***
symptoms_muscle_and_joint_pain	0.107118	0.027692	3.868	0.00011	***
symptoms_tight_feeling_in_chest	0.392932	0.03932	9.993	2.00E-16	***
symptoms_loss_of_appetite	0.174364	0.057312	3.042	0.002348	**
symptoms_diarrhea	0.223647	0.060271	3.711	0.000207	***
symptoms_loss_of_taste_and_or_smell	0.300098	0.053623	5.596	2.19E-08	***

	Estimate	Std.	Error	Pr(> t )	Significance
(Intercept)	0.4171103	0.1595261	2.615	0.008931	**
West.South.Central	0.0068548	0.0172601	0.397	0.691258	
West.North.Central	0.0316631	0.0194357	1.629	0.103289	
South.Atlantic	0.022178	0.0126389	1.755	0.079305	.
New.England	0.0368362	0.0168165	2.19	0.02849	*
Mountain	0.0199902	0.0169539	1.179	0.238363	
Middle.Atlantic	0.0568226	0.0179232	3.17	0.001523	**

East.South.Central	-0.0135969	0.0182061	-0.747	0.455165	
East.North.Central	0.0294649	0.0130933	2.25	0.024426	*
sleep_11_or_more_hours	0.0308655	0.0336969	0.916	0.35968	
sleep_9_to_10_hours	0.0386108	0.0155364	2.485	0.012949	*
sleep_5_to_6_hours	-0.001947	0.0104514	-0.186	0.85222	
sleep_less_than_5	-0.0154084	0.0152107	-1.013	0.311063	
exposed_most_likely	0.0144095	0.0079196	1.819	0.068839	.
exposed_yes_not_household	0.0699483	0.009327	7.5	6.42E-14	***
exposed_yes_household	0.2619436	0.0152846	17.138	2.00E-16	***
covid_19_symptoms_in_household	0.1064484	0.011557	9.211	2.00E-16	***
popden_1000	0.0215413	0.0104874	2.054	0.039974	*
popden_150_999	0.0190819	0.0098096	1.945	0.05175	.
prof_other_essential	0.0240954	0.0090332	2.667	0.007644	**
prof_healthcare	0.0352841	0.0077545	4.55	5.36E-06	***
household_members_count_5	-0.0054157	0.0121981	-0.444	0.657057	
household_members_count_4	-0.0088292	0.0117282	-0.753	0.45156	
household_members_count_3	-0.0115208	0.0111129	-1.037	0.299875	
household_members_count_2	-0.0029714	0.0097918	-0.303	0.76154	
symptoms_tingling_sensation	0.0410149	0.0327203	1.254	0.210024	
symptoms_fever	0.0544248	0.0234878	2.317	0.020496	*
symptoms_fatigue	-0.0221191	0.014722	-1.502	0.132983	
symptoms_sore_throat	-0.0667042	0.0199776	-3.339	0.000841	***
symptoms_runny_nose	-0.0301398	0.0143322	-2.103	0.035472	*
symptoms_nausea_and_vomiting	-0.0341876	0.0250165	-1.367	0.171751	
symptoms_shortness_of_breath	-0.0500113	0.0217913	-2.295	0.021733	*
symptoms_nasal_congestion	0.0080699	0.0116802	0.691	0.489624	
symptoms_muscle_and_joint_pain	0.0029925	0.0131473	0.228	0.819949	
symptoms_tight_feeling_in_chest	-0.0096105	0.0177811	-0.54	0.58886	
symptoms_loss_of_appetite	0.0223603	0.0228698	0.978	0.328213	
symptoms_diarrhea	-0.0213776	0.0246025	-0.869	0.384891	
symptoms_loss_of_taste_and_or_smell	0.3551718	0.0202035	17.58	2.00E-16	***
symptoms_chills_shaking	-0.0616176	0.0229186	-2.689	0.007177	**
symptoms_cough	0.0459396	0.0150944	3.043	0.002339	**
used_to_smoke	0.0022568	0.0072768	0.31	0.756456	
preexisting_pregnant	0.1124931	0.0306197	3.674	0.000239	***
preexisting_not_say	0.0426077	0.0387944	1.098	0.272077	
preexisting_liver_disease	0.0099185	0.0257313	0.385	0.699893	
preexisting_immunodeficiency	0.0018706	0.0136423	0.137	0.890938	
preexisting_hypertension	-0.0002468	0.0086868	-0.028	0.977337	

preexisting_diabetes	0.0105415	0.0115605	0.912	0.361848	
preexisting_chronic_kidney_disease	0.0127925	0.0229761	0.557	0.577681	
preexisting_chronic_lung_disease	-0.0115162	0.0182188	-0.632	0.527317	
preexisting_cardiovascular_disease	-0.0417769	0.014636	-2.854	0.004312	**
preexisting_cancer	-0.0232186	0.0175832	-1.321	0.186669	
preexisting_autoimmune_disease	-0.0318668	0.0103598	-3.076	0.002098	**
preexisting_asthma	-0.0382121	0.0083326	-4.586	4.52E-06	***
preexisting_allergies	-0.0158277	0.0068308	-2.317	0.020499	*
unadj_100k	-0.007772	0.0102957	-0.755	0.450319	
unadj_70_100k	-0.0118899	0.0077419	-1.536	0.124594	
unadj_0_40k	-0.0139918	0.01247	-1.122	0.261847	
race_ethnicity_unknown	0.0103179	0.0323263	0.319	0.74959	
race_ethnicity_other_expanded	0.016537	0.0282502	0.585	0.558296	
race_ethnicity_multi	0.0012057	0.034743	0.035	0.972316	
race_ethnicity_asian	0.0085361	0.0229429	0.372	0.70985	
race_ethnicity_african_american	0.0290363	0.0146628	1.98	0.047675	*
race_ethnicity_hispanic_latino	0.0270109	0.0118679	2.276	0.02285	*
female	-0.0236937	0.0087949	-2.694	0.00706	**
X65_99	0.0064732	0.0140442	0.461	0.64486	
X55_64	-0.0068201	0.0117358	-0.581	0.561152	
X45_54	-0.0084757	0.0110758	-0.765	0.444127	
X30_44	-0.0054084	0.0095408	-0.567	0.570806	
test_rate_0_2	-0.010236	0.0121386	-0.843	0.39908	
test_rate_2.5_3.7	-0.0066177	0.0126716	-0.522	0.601499	
test_rate_3.7	0.0102412	0.0139205	0.736	0.461919	
	Error	terms:			
	Estimate	Std.	Error	Pr(> t )	Significance
sigma	0.225857	0.006954	32.48	2.00E-16	***
rho	-0.342502	0.086281	-3.97	7.20E-05	***
---					
Significance	0	****			
	0.001	***			
	0.01	**			
	0.05	*			

Supplementary Table 7: The 9 US Census region mapped to states.

Census Region	Census Division	State
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<b>Northeast</b>	New England	Connecticut
<b>Northeast</b>	New England	Maine
<b>Northeast</b>	New England	Massachusetts
<b>Northeast</b>	New England	New Hampshire
<b>Northeast</b>	New England	Rhode Island
<b>Northeast</b>	New England	Vermont
<b>Northeast</b>	Middle Atlantic	New Jersey
<b>Northeast</b>	Middle Atlantic	New York
<b>Northeast</b>	Middle Atlantic	Pennsylvania
<b>Midwest</b>	East North Central	Illinois
<b>Midwest</b>	East North Central	Indiana
<b>Midwest</b>	East North Central	Michigan
<b>Midwest</b>	East North Central	Ohio
<b>Midwest</b>	East North Central	Wisconsin
<b>Midwest</b>	West North Central	Iowa
<b>Midwest</b>	West North Central	Kansas
<b>Midwest</b>	West North Central	Minnesota
<b>Midwest</b>	West North Central	Missouri
<b>Midwest</b>	West North Central	Nebraska
<b>Midwest</b>	West North Central	North Dakota
<b>Midwest</b>	West North Central	South Dakota
<b>South</b>	South Atlantic	Delaware
<b>South</b>	South Atlantic	District of Columbia
<b>South</b>	South Atlantic	Florida
<b>South</b>	South Atlantic	Georgia
<b>South</b>	South Atlantic	Maryland
<b>South</b>	South Atlantic	North Carolina
<b>South</b>	South Atlantic	South Carolina
<b>South</b>	South Atlantic	Virginia
<b>South</b>	South Atlantic	West Virginia
<b>South</b>	East South Central	Alabama
<b>South</b>	East South Central	Kentucky
<b>South</b>	East South Central	Mississippi
<b>South</b>	East South Central	Tennessee
<b>South</b>	West South Central	Arkansas
<b>South</b>	West South Central	Louisiana
<b>South</b>	West South Central	Oklahoma

<b>South</b>	West South Central	Texas
<b>West</b>	Mountain	Arizona
<b>West</b>	Mountain	Colorado
<b>West</b>	Mountain	Idaho
<b>West</b>	Mountain	Montana
<b>West</b>	Mountain	Nevada
<b>West</b>	Mountain	New Mexico
<b>West</b>	Mountain	Utah
<b>West</b>	Mountain	Wyoming
<b>West</b>	Pacific	Alaska
<b>West</b>	Pacific	California
<b>West</b>	Pacific	Hawaii
<b>West</b>	Pacific	Oregon
<b>West</b>	Pacific	Washington

Supplementary Table 8: Logistic regression coefficients for selection/propensity model for who gets tested with post-stratification. Analysis used 277151 total observations.

	coef	std err	z	P> z	[0.025	0.975]
<b>intercept</b>	-4.6682	0.083	-56.195	0.000	-4.831	-4.505
<b>West South Central</b>	-0.3760	0.060	-6.308	0.000	-0.493	-0.259
<b>West North Central</b>	-0.5641	0.083	-6.781	0.000	-0.727	-0.401
<b>South Atlantic</b>	-0.3019	0.051	-5.873	0.000	-0.403	-0.201
<b>New England</b>	-0.0903	0.072	-1.249	0.212	-0.232	0.051
<b>Mountain</b>	0.0591	0.065	0.904	0.366	-0.069	0.187
<b>Middle Atlantic</b>	-0.4030	0.058	-6.902	0.000	-0.517	-0.289
<b>East South Central</b>	0.1333	0.071	1.886	0.059	-0.005	0.272
<b>East North Central</b>	-0.2877	0.056	-5.095	0.000	-0.398	-0.177
<b>sleep_11_or_more_hours</b>	0.2997	0.173	1.735	0.083	-0.039	0.638
<b>sleep_9_to_10_hours</b>	0.1187	0.073	1.623	0.105	-0.025	0.262
<b>sleep_5_to_6_hours</b>	0.0927	0.046	2.025	0.043	0.003	0.183
<b>sleep_less_than_5</b>	-0.2069	0.073	-2.841	0.004	-0.350	-0.064
<b>popden_1000+</b>	0.2991	0.047	6.313	0.000	0.206	0.392
<b>popden_150-999</b>	-0.0162	0.046	-0.351	0.726	-0.107	0.074
<b>prof_other_essential</b>	0.3796	0.040	9.388	0.000	0.300	0.459
<b>prof_healthcare</b>	0.9765	0.039	25.299	0.000	0.901	1.052

household_members_count_5	-0.3250	0.058	-5.585	0.000	-0.439	-0.211
household_members_count_4	-0.4210	0.056	-7.491	0.000	-0.531	-0.311
household_members_count_3	-0.2932	0.052	-5.599	0.000	-0.396	-0.191
household_members_count_2	-0.2148	0.045	-4.808	0.000	-0.302	-0.127
symptoms_tingling_sensation	-0.6236	0.188	-3.312	0.001	-0.993	-0.255
symptoms_fever	1.2777	0.110	11.598	0.000	1.062	1.494
symptoms_fatigue	0.5246	0.065	8.063	0.000	0.397	0.652
symptoms_sore_throat	0.8766	0.103	8.525	0.000	0.675	1.078
symptoms_runny_nose	-0.0697	0.075	-0.927	0.354	-0.217	0.078
symptoms_nausea_and_vomiting	-0.0529	0.149	-0.355	0.723	-0.345	0.239
symptoms_shortness_of_breath	0.8782	0.114	7.735	0.000	0.656	1.101
symptoms_nasal_congestion	0.2082	0.061	3.424	0.001	0.089	0.327
symptoms_muscle_and_joint_pain	0.2512	0.065	3.884	0.000	0.124	0.378
symptoms_tight_feeling_in_chest	0.6088	0.090	6.776	0.000	0.433	0.785
symptoms_loss_of_appetite	0.4132	0.128	3.230	0.001	0.162	0.664
symptoms_diarrhea	0.2220	0.141	1.571	0.116	-0.055	0.499
symptoms_loss_of_taste_and_or_smell	0.2460	0.123	2.004	0.045	0.005	0.487
symptoms_chills_shaking	0.3479	0.126	2.761	0.006	0.101	0.595
symptoms_cough	1.0723	0.062	17.373	0.000	0.951	1.193
used_to_smoke	0.0618	0.034	1.794	0.073	-0.006	0.129
preexisting_pregnant	-0.1346	0.216	-0.624	0.533	-0.557	0.288
preexisting_not_say	-0.1896	0.156	-1.218	0.223	-0.495	0.116
preexisting_liver_disease	-0.2375	0.147	-1.611	0.107	-0.526	0.052
preexisting_immunodeficiency	0.2311	0.072	3.196	0.001	0.089	0.373
preexisting_hypertension	0.0799	0.039	2.025	0.043	0.003	0.157
preexisting_diabetes	0.1375	0.050	2.739	0.006	0.039	0.236
preexisting_chronic_kidney_disease	0.4078	0.098	4.152	0.000	0.215	0.600
preexisting_chronic_lung_disease	-0.0499	0.093	-0.538	0.591	-0.232	0.132
preexisting_cardiovascular_disease	0.2879	0.062	4.656	0.000	0.167	0.409
preexisting_cancer	0.1340	0.086	1.551	0.121	-0.035	0.303
preexisting_autoimmune_disease	0.0575	0.058	0.986	0.324	-0.057	0.172
preexisting_asthma	0.0682	0.043	1.577	0.115	-0.017	0.153
preexisting_allergies	-0.0263	0.034	-0.769	0.442	-0.093	0.041
unadj_100k+	-0.1989	0.050	-3.961	0.000	-0.297	-0.100
unadj_70-100k	-0.1329	0.038	-3.486	0.000	-0.208	-0.058
unadj_0-40k	-0.0607	0.056	-1.092	0.275	-0.170	0.048
race_ethnicity_unknown	-0.0916	0.157	-0.582	0.560	-0.400	0.217
race_ethnicity_other_expanded	-0.0755	0.082	-0.924	0.355	-0.235	0.085
race_ethnicity_multi	0.0450	0.168	0.267	0.789	-0.285	0.375

<b>race_ethnicity_asian</b>	0.0139	0.087	0.161	0.872	-0.156	0.183
<b>race_ethnicity_african_american</b>	0.3058	0.052	5.836	0.000	0.203	0.409
<b>race_ethnicity_hispanic_latino</b>	0.3154	0.047	6.657	0.000	0.223	0.408
<b>female</b>	-0.0084	0.033	-0.251	0.802	-0.074	0.057
<b>65-99</b>	0.4340	0.061	7.135	0.000	0.315	0.553
<b>55-64</b>	0.4965	0.056	8.838	0.000	0.386	0.607
<b>45-54</b>	0.4517	0.053	8.480	0.000	0.347	0.556
<b>30-44</b>	0.3567	0.048	7.411	0.000	0.262	0.451

Supplementary Table 9: Bootstrapped logistic regression coefficients and corresponding 95% confidence intervals for 0.1 and 0.9 truncated IPW corrected regression, using post-stratification. The standard errors were calculated assuming normality of the bootstrapped distribution. Specifically, if the bootstrapped CI = (a, b), the standard error could be approximated as SE = (b – a)/(2 \* 1.96). The z-value could be calculated by dividing the coefficient estimate by the standard error, and then the normal distribution could be used to obtain the p-value. Analysis used 3829 testing outcome observations.

	coef	CI 2.5%	CI 97.5%	SE	Z-value	Pvalue
<b>intercept</b>	-5.2063	-6.35893	-4.087	0.579576	-8.98295	2.64E-19
<b>30-44</b>	0.141447	-0.25704	0.555758	0.207347	0.682175	0.495129
<b>45-54</b>	0.105075	-0.34236	0.555695	0.229095	0.458652	0.646484
<b>55-64</b>	0.052337	-0.46237	0.545931	0.25722	0.203472	0.838766
<b>65-99</b>	-0.06061	-0.82625	0.661613	0.379556	-0.15968	0.873136
<b>female</b>	-0.5816	-0.94941	-0.22207	0.185546	-3.13454	0.001721
<b>race_ethnicity_hispanic_latino</b>	0.946633	0.502843	1.371302	0.221546	4.272857	1.93E-05
<b>race_ethnicity_african_american</b>	0.850701	0.275525	1.403977	0.28787	2.955153	0.003125
<b>race_ethnicity_asian</b>	-0.70251	-1.57031	0.721215	0.584572	-1.20174	0.229462
<b>race_ethnicity_multi</b>	1.233631	-1.34148	3.760202	1.301449	0.94789	0.343185
<b>race_ethnicity_other_expanded</b>	-0.11805	-0.9772	1.198732	0.555084	-0.21267	0.831588
<b>race_ethnicity_unknown</b>	-1.07123	-3.59029	1.334694	1.256374	-0.85264	0.393859
<b>unadj_0-40k</b>	-0.08299	-0.73945	0.483034	0.311858	-0.26611	0.790158
<b>unadj_70-100k</b>	-0.34552	-0.68577	-0.0023	0.174355	-1.98172	0.04751
<b>unadj_100k+</b>	-0.21662	-0.64291	0.185881	0.211425	-1.02459	0.305559
<b>preexisting_allergies</b>	-0.33228	-0.6686	-0.03304	0.162132	-2.04941	0.040422
<b>preexisting_asthma</b>	-0.87221	-1.34753	-0.45658	0.227281	-3.83757	0.000124
<b>preexisting_autoimmune_disease</b>	-0.91308	-1.51067	-0.39338	0.285025	-3.20351	0.001358
<b>preexisting_cancer</b>	-0.57548	-1.67627	0.313169	0.507509	-1.13393	0.256825
<b>preexisting_cardiovascular_disease</b>	-1.39241	-2.54695	-0.39962	0.547789	-2.54188	0.011026

preexisting_chronic_lung_disease	-0.63734	-2.31369	0.632281	0.751522	-0.84807	0.396402
preexisting_chronic_kidney_disease	0.392129	-1.0655	1.551477	0.667595	0.587375	0.556952
preexisting_diabetes	0.039186	-0.49639	0.533659	0.262767	0.149128	0.881452
preexisting_hypertension	0.188105	-0.21287	0.570789	0.199913	0.940933	0.346739
preexisting_immuneodeficiency	-0.10527	-0.93687	0.607786	0.394045	-0.26714	0.789362
preexisting_liver_disease	0.269279	-0.89474	1.255361	0.548494	0.490942	0.623467
preexisting_not_say	0.018245	-1.6054	1.493084	0.790431	0.023082	0.981585
preexisting_pregnant	1.873646	1.000313	2.670485	0.426064	4.397566	1.09E-05
used_to_smoke	0.058266	-0.27439	0.37862	0.166583	0.349771	0.726511
symptoms_cough	1.469172	1.011507	1.922398	0.23237	6.32255	2.57E-10
symptoms_chills_shaking	-0.45526	-1.62137	0.619071	0.571541	-0.79654	0.425716
symptoms_loss_of_taste_and_or_smell	3.465673	2.825516	4.10295	0.325876	10.63494	2.05E-26
symptoms_diarrhea	-0.1832	-1.44955	0.967574	0.616612	-0.2971	0.766387
symptoms_loss_of_appetite	0.545917	-0.3835	1.437874	0.464635	1.174937	0.24002
symptoms_tight_feeling_in_chest	-0.37846	-1.1519	0.347511	0.382503	-0.98942	0.322457
symptoms_muscle_and_joint_pain	0.253312	-0.27006	0.775582	0.266746	0.949636	0.342297
symptoms_nasal_congestion	0.245375	-0.26388	0.729598	0.253439	0.968183	0.332953
symptoms_shortness_of_breath	-0.10123	-1.10795	0.871174	0.504878	-0.20051	0.841082
symptoms_nausea_and_vomiting	0.292623	-1.01871	1.488443	0.639579	0.457524	0.647294
symptoms_runny_nose	-0.49888	-1.22202	0.166372	0.354182	-1.40854	0.158971
symptoms_sore_throat	-0.60462	-1.48173	0.213595	0.43248	-1.39803	0.162105
symptoms_fatigue	0.174204	-0.48331	0.782557	0.322926	0.539456	0.589572
symptoms_fever	1.80117	1.02239	2.582829	0.398071	4.524744	6.05E-06
symptoms_tingling_sensation	0.461365	-1.71159	2.258924	1.012885	0.455496	0.648753
household_members_count_2	-0.11218	-0.58049	0.373175	0.243283	-0.46111	0.644717
household_members_count_3	-0.42164	-0.94259	0.134434	0.27475	-1.53463	0.124876
household_members_count_4	-0.23641	-0.78028	0.32151	0.28107	-0.8411	0.400294
household_members_count_5	-0.28791	-0.83356	0.281236	0.284387	-1.01237	0.31136
prof_healthcare	0.663392	0.321828	1.001828	0.173469	3.82426	0.000131
prof_other_essential	0.527647	0.124931	0.910278	0.200344	2.63371	0.008446
popden_150-999	0.478119	-0.01677	0.999167	0.259168	1.84482	0.065064
popden_1000+	0.643609	0.156703	1.184808	0.262272	2.453978	0.014129
covid_19_symptoms_in_household	1.412379	1.008673	1.800092	0.201893	6.995695	2.64E-12
exposed_yes_household	2.958074	2.51247	3.447435	0.238511	12.40223	2.54E-35
exposed_yes_not_household	1.279502	0.940388	1.629222	0.175723	7.281359	3.3E-13
exposed_most_likely	0.808352	0.480723	1.130348	0.165721	4.877798	1.07E-06
sleep_less_than_5	-0.05805	-0.86045	0.653465	0.386203	-0.15032	0.880514
sleep_5_to_6_hours	0.204745	-0.33092	0.719527	0.267972	0.764053	0.444836
sleep_9_to_10_hours	0.930622	0.257012	1.581265	0.33782	2.754789	0.005873
sleep_11_or_more_hours	0.379953	-2.16156	2.202489	1.113279	0.341292	0.732884
test_rate_0-2	-0.77611	-1.39438	-0.18535	0.308428	-2.51633	0.011858
test_rate_2.5-3.7	-0.37298	-0.95767	0.211884	0.298355	-1.25012	0.211255
test_rate_3.7+	-0.1817	-0.73549	0.398961	0.289402	-0.62783	0.530113

<b>East North Central</b>	0.87207	0.144302	1.614662	0.375092	2.324951	0.020075
<b>East South Central</b>	-1.78018	-23.0615	0.79053	6.084711	-0.29257	0.769854
<b>Middle Atlantic</b>	1.279399	0.381574	2.206485	0.465539	2.748213	0.005992
<b>Mountain</b>	0.980349	-0.04119	1.997242	0.520008	1.885256	0.059395
<b>New England</b>	1.033302	0.117667	1.916115	0.458788	2.252244	0.024307
<b>South Atlantic</b>	0.632447	-0.0743	1.369972	0.368436	1.71657	0.086058
<b>West North Central</b>	0.826	-0.14816	1.776496	0.490983	1.68234	0.092503
<b>West South Central</b>	-0.02908	-1.31461	1.149895	0.628699	-0.04625	0.963109

**Supplementary Table 10:** Table of regression coefficients from multivariable logistic regression model for household exposure using subjects who received a test

Variable	Variable Type (Reference)	Estimate	Std Error	Statistic	P value	95% CI Lower Bound	95% CI Upper Bound
Intercept		-3.69	0.351	-10.5	7.12E-26	-4.39	-3.02
Household exposure	Any other exposure or no exposure	2.33	0.219	10.6	1.78E-26	1.9	2.76
Household size 3	Household size of 2	-0.156	0.213	-0.734	0.463	-0.58	0.257
Household size 4		-0.169	0.225	-0.753	0.451	-0.617	0.265
Household size 5+		-0.083	0.234	-0.355	0.722	-0.549	0.369
Age 30-45	Age 18-30	0.136	0.229	0.591	0.554	-0.309	0.592
Age 45-60		0.172	0.242	0.71	0.477	-0.298	0.652
Age 60-80		-0.395	0.333	-1.19	0.236	-1.06	0.25
Age 80+		0.153	1.32	0.116	0.908	-3.07	2.4
Male	Gender (Female)	0.41	0.211	1.94	0.0522	-0.0101	0.82
Other		-12.2	470	-0.026	0.979		25.6
11 or more hours	Sleeping 7-8 hours	0.838	0.737	1.14	0.256	-0.68	2.21
5-6 hours		0.0921	0.263	0.351	0.726	-0.427	0.604
9-10 hours		0.476	0.362	1.31	0.189	-0.251	1.17
Less than 5 hours		-0.456	0.394	-1.16	0.247	-1.25	0.294
Cough	Symptoms	1.44	0.31	4.65	3.40E-06	0.827	2.04
Chills/shaking		-0.733	0.508	-1.44	0.149	-1.75	0.244
Loss of taste and/or smell		3.44	0.315	10.9	1.01E-27	2.83	4.07
Diarrhea		-0.102	0.517	-0.197	0.844	-1.14	0.889
Loss of appetite		0.255	0.445	0.572	0.567	-0.629	1.12
Tight feeling in chest		-0.263	0.368	-0.714	0.475	-0.998	0.448
Muscle and joint pain		0.728	0.296	2.46	0.0138	0.143	1.3
Nasal congestion		0.49	0.263	1.86	0.0624	-0.0327	0.999
Shortness of breath		-0.164	0.444	-0.369	0.712	-1.04	0.7
Nausea and vomiting		0.036	0.55	0.0655	0.948	-1.06	1.09
Runny nose		-0.493	0.35	-1.41	0.158	-1.2	0.175

Sore throat		-0.602	0.413	-1.46	0.145	-1.43	0.194
Fatigue		0.397	0.346	1.15	0.251	-0.303	1.06
Fever		1.4	0.391	3.58	0.000348	0.621	2.16
Facial Numbness		0.503	1.23	0.41	0.682	-2.01	2.87
Tingling sensation		-0.14	0.78	-0.179	0.858	-1.68	1.36
Chronic lung disease	Pre-existing conditions	-0.895	0.795	-1.13	0.26	-2.78	0.441
Allergies		-0.515	0.181	-2.85	0.00441	-0.874	-0.164
Asthma		-0.857	0.254	-3.37	0.000749	-1.37	-0.374
Autoimmune disease		-0.903	0.331	-2.73	0.00637	-1.59	-0.284
Cancer		-0.287	0.495	-0.579	0.562	-1.34	0.613
Cardiovascular disease		-1.28	0.608	-2.11	0.035	-2.61	-0.198
Chronic kidney disease		-0.0674	0.721	-0.0935	0.926	-1.67	1.2
Diabetes		0.424	0.279	1.52	0.129	-0.14	0.957
Hypertension		0.143	0.227	0.632	0.528	-0.311	0.581
Immunodeficiency		0.111	0.393	0.284	0.777	-0.703	0.845
Liver Disease		0.557	0.549	1.01	0.31	-0.626	1.56
Not say		0.313	0.776	0.404	0.687	-1.33	1.73
Pregnant		1.39	0.519	2.68	0.00735	0.276	2.34
African American	Race (white)	0.871	0.301	2.89	0.00383	0.265	1.45
Asian		0.0832	0.57	0.146	0.884	-1.19	1.09
Hispanic/Latinx		0.856	0.229	3.74	0.000181	0.4	1.3
Missing		0.483	0.769	0.628	0.53	-1.17	1.86
Multiracial White		-0.199	0.434	-0.46	0.646	-1.12	0.596
Other		0.163	0.545	0.3	0.764	-0.993	1.16
Healthcare	Profession (Nonessential)	0.825	0.189	4.37	1.22E-05	0.457	1.2
Missing		2.63	0.981	2.68	0.00735	0.535	4.48
Other essential		0.673	0.216	3.11	0.00186	0.246	1.09
0-40K	Median ZIP Code Income (\$100K+ per year)	0.0105	0.388	0.0271	0.978	-0.778	0.751
40K-70K		0.107	0.245	0.436	0.663	-0.366	0.598
70K-100K		-0.0982	0.249	-0.394	0.694	-0.582	0.399
0-150	County population density (1000+ people per sq mile)	-1.22	0.324	-3.78	0.000154	-1.89	-0.619
150-1000		-0.25	0.176	-1.42	0.156	-0.599	0.0927

Supplementary Table 11: Features used for CDC Symptoms ROC AUC comparison

Features Used in CDC Symptoms AUC Comparisons	Corresponding scaling transformations (e.g. $x \rightarrow 2^*x$ )
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symptoms_cough	
symptoms_chills_shaking	
symptoms_loss_of_taste_and_or_smell	
symptoms_sore_throat	
symptoms_muscle_and_joint_pain	
symptoms_fever	
symptoms_shortness_of_breath	

Supplementary Table 12: Features used for Major HWF Survey Questions ROC AUC comparison

Features Used in All Survey Questions in AUC Comparisons	Corresponding scaling transformations (e.g. $x \rightarrow 2*x$ )
30-44	
45-54	
55-64	
65-99	
age	$x \rightarrow x/100$
female	
race_ethnicity_hispanic_latino	
race_ethnicity_african_american	
race_ethnicity_asian	
race_ethnicity_multi	

race_ethnicity_other_expanded	
race_ethnicity_unknown	
unadj_0-40k	
unadj_70-100k	
unadj_100k+	
0-40k	
70-100k	
100k+	
income_unadjusted	$x \rightarrow (x-60000)/3000000000$
income	$x \rightarrow (x-60000)/300000000$
preexisting_allergies	
preexisting_asthma	
preexisting_autoimmune_disease	
preexisting_cancer	
preexisting_cardiovascular_disease	
preexisting_chronic_lung_disease	
preexisting_chronic_kidney_disease	
preexisting_diabetes	
preexisting_hypertension	
preexisting_immunodeficiency	
preexisting_liver_disease	

preeexisting_not_say	
preexisting_pregnant	
used_to_smoke	
feeling	
symptoms_cough	
symptoms_chills_shaking	
symptoms_loss_of_taste_and_or_smell	
symptoms_diarrhea	
symptoms_loss_of_appetite	
symptoms_tight_feeling_in_chest	
symptoms_muscle_and_joint_pain	
symptoms_nasal_congestion	
symptoms_shortness_of_breath	
symptoms_nausea_and_vomiting	
symptoms_runny_nose	
symptoms_sore_throat	
symptoms_fatigue	
symptoms_fever	
symptoms_tingling_sensation	
symptoms_temp_f_100-101	
symptoms_temp_f_101-102	

symptoms_temp_f_102+	
household_members_count_2	
household_members_count_3	
household_members_count_4	
household_members_count_5	
protective_face_mask_gt50	
protective_face_mask_not_been_outside	
protective_face_mask_perc	
protective_measures_social_distancing_perc	
prof_healthcare	
prof_other_essential	
popden_150-999	
popden_1000+	
contact_0	
contact_5+	
contact_isnan	
covid_19_symptoms_in_household	
exposed_yes_household	
exposed_yes_not_household	
exposed_most_likely	
sleep_less_than_5	

sleep_5_to_6_hours	
sleep_9_to_10_hours	
sleep_11_or_more_hours	
pop_density_county	x  -> x/10000

Supplementary Table 13: Features used for the 4 Survey Questions ROC AUC comparison

Features Used in 4 survey questions in AUC Comparisons	Corresponding scaling transformations (e.g. $x \rightarrow 2*x$ )
symptoms_loss_of_taste_and_or_smell	
covid_19_symptoms_in_household	
exposed_yes_household	
exposed_most_likely	
exposed_no_not_likely	
exposed_yes_not_household	

Supplementary Table 14: Cross validation grid search for XGBoost

Model hyperparameter	Grid values
n_estimators	20,25,30,35,40,45,50
gamma	0
max_depth	2,3,4,5
subsample	0.9,1

reg_alpha	0,0.1,1,10,50
reg_lambda	0,0.1,1,10,50,100,200

Supplementary Table 15: Analysis of factors associated with leaving home for work in those who were tested, with 2736 total observations.

	coef	std err	z	P> z	[0.025	0.975]
const	-1.7930	0.157	-11.388	0.000	-2.102	-1.484
female	-0.4116	0.130	-3.155	0.002	-0.667	-0.156
55-99	-0.4006	0.120	-3.337	0.001	-0.636	-0.165
race_ethnicity_hispanic_latino	0.1850	0.169	1.095	0.274	-0.146	0.516
race_ethnicity_african_american	-0.0832	0.225	-0.369	0.712	-0.524	0.358
race_ethnicity_asian	0.2413	0.374	0.646	0.518	-0.491	0.973
race_ethnicity_multi	-0.3981	0.529	-0.752	0.452	-1.435	0.639
race_ethnicity_other_expanded	0.2052	0.444	0.462	0.644	-0.665	1.075
race_ethnicity_unknown	0.5128	0.489	1.049	0.294	-0.446	1.471
popden_1000+	-0.1730	0.101	-1.714	0.087	-0.371	0.025
Covid+	-2.1232	0.287	-7.391	0.000	-2.686	-1.560
profession_healthcare	2.2279	0.121	18.394	0.000	1.991	2.465
profession_other_essential	1.9139	0.137	14.007	0.000	1.646	2.182